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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,419	09/30/2003	Yo Yamato	0425-1080P	2706

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EXAMINER
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GELLNER, JEFFREY L

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 08/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/673,419

**Applicant(s)**

YAMATO ET AL.

**Examiner**

Jeffrey L. Gellner

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of “gas generating agent” is recited in claim 1, line 1, and discussed throughout in the Specification at, for example, page 13, last para., and page 14. However, in the Specification at page 12, last para., the fuel is disclosed as being part of the “gas generating composition.” The oxidizer for the “gas generating composition” is disclosed at page 13, lines 5. The fuel and oxidizer for the “gas generating agent” is not disclosed in such manner to allow one skilled in the art to make or use the invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundstrom et al. (US 5,756,929; 4<sup>th</sup> document listed on page 1 of Applicant's 1449) in view of Kirchoff et al. (US 3,972,545).

As to claim 1, Lundstrom et al. disclose a gas generating composition for air bags comprising a gas generating agent ("guanidine compounds" of col. 2 lines 21-35), a reducing material ("guanidine" of col. 3 lines 33-42), an ignition means (col. 4 lines 8-16). Not disclosed is an inflator with a coolant/filter and the reducing material in the inflator. Kirchoff et al., however, discloses an inflator (Fig.) with a coolant/filter (see abstract) and the reducing agent in the inflator (in that the gas generating composition would be placed in the inflator). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the composition of Lundstrom et al. by using in the inflator of Kirchoff et al. so as to have a use for the composition.

As to claims 2, 3, and 12, Lundstrom et al. as modified by Kirchoff et al. further disclose a means for preventing the change or variance of NO<sub>x</sub> reducing effect being a partition plate made of plastic (15 and 23 of Fig. of Kirchoff et al.) .

As to claim 5, Lundstrom et al. as modified by Kirchoff et al. further disclose an impact sensor (Kirchoff et al. at col. 2 lines 15-17), control means for imputing a detected signal and outputting an operation signal to the ignition means (implied by Kirchoff et al. at col. 2 lines 15-17) and an air bag (Kirchoff et al. at col. 1, last line).

As to claim 11, the limitations of claim 1 are disclosed and described above. Not disclosed is the reducing catalyst being from 0.1 to 20 parts by weight on the basis of 100 of the reducing material. It would have been obvious to one of ordinary skill in the art at the time of

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the invention to further modify the composition of Lundstrom et al. as modified by Kirchoff et al. by having the reducing catalyst being from 0.1 to 20 parts by weight on the basis of 100 of the reducing material depending upon the goal of the composition.

As to claim 13, Lundstrom et al. as modified by Kirchoff et al. further disclose a plate that is aluminum (23 of Fig. and col. 3 lines 5-8).

As to claims 14 and 15, the limitations of claim 3 are disclosed and described above. , Lundstrom et al. as modified by Kirchoff et al. further disclose a plate that is aluminum (23 of Fig. and col. 3 lines 5-8). Not disclosed is the partition plate being 30 to 200 microns or 1 to 3 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Lundstrom et al. as modified by Kirchoff et al. by having the partition plate being 30 to 200 microns or 1 to 3 mm so as to achieve a particular goal.

As to claims 6 and 7, Lundstrom et al. disclose a gas generating composition for air bags comprising a gas generating agent ("guanidine compounds" of col. 2 lines 21-35), a reducing material that is a guanidine derivative ("triaminoguanidine salts" of col. 3 lines 33-42), an ignition means (col. 4 lines 8-16). Not disclosed is an inflator with a coolant/filter and the reducing material in the inflator. Kirchoff et al., however, discloses an inflator (Fig.) with a coolant/filter (see abstract) and the reducing agent in the inflator (in that the gas generating composition would be placed in the inflator). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the composition of Lundstrom et al. by using in the inflator of Kirchoff et al. so as to have a use for the composition. The combination of Lundstrom et al. and Kirchoff et al. inherently perform the method steps recited in claim 6.

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As to claims 8 and 9, Lundstrom et al. as modified by Kirchoff et al. further disclose a reducing catalyst that is a copper oxide (from “transition metal oxides” of col. 3 lines 63-64 of Lundstrom et al.).

As to claim 10, the limitations of claim 8 are disclosed and described above. Not disclosed is the reducing catalyst being from 0.01 to 200 parts by weight on the basis of 100 of the reducing material. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Lundstrom et al. as modified by Kirchoff et al. by having the reducing catalyst being from 0.01 to 200 parts by weight on the basis of 100 of the reducing material depending upon the goal of the composition.

### ***Response to Arguments***

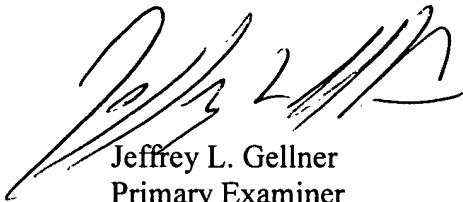
Applicant's arguments with respect to claims 1-3 and 5-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off, if attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. L. Gellner', is positioned above the printed name.

Jeffrey L. Gellner  
Primary Examiner  
Art Unit 3643